

CLAIMS

- 1.A device for monitoring the application of a motor vehicle automatic parking brake, comprising driven
5 means (10) for applying at least one brake pad (2) to a brake disk (1), characterized by measurement means (5) for measuring a physical property of the pad (2), the value of which varies as a function of a force applied through the pad (2) to the brake disk (1).
- 10 2.The device according to Claim 1, further characterized by comparison means (9) for comparing the measured values of said property with prerecorded values, these comparison means (9) being connected to
15 means (10) for commanding application of the brake.
- 3.The device according to Claim 1, characterized in that said physical property is an electrical magnitude associated with the conductivity or resistivity of the
20 brake pad (2) and in particular of its friction lining (3).
- 4.The device according to claim 3, characterized in that the material of the friction lining (3) of the pad
25 (2) contains an addition of an electrically conducting component (C) in granular or powder form, such as copper or carbon black for example.
- 5.The device according to claim 3, characterized in
30 that the friction lining (3) of the brake pad (2) comprises a wear indicator (11) formed of an electrically conducting element embedded in the friction lining (3) and in that an electrically conducting component (C) in granular or powder form is
35 added to the material of the friction lining (3) solely between the wear indicator (11) and a backing (4) to which the friction lining (3) is attached.
- 6.The device according to claim 3 further characterized

by a measurement apparatus (5), including a volt meter and an electrical supply circuit (6) which are electrically connected to the friction lining (3) of the brake pad (2) and to a metal component.

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7.A method for monitoring the application of a motor vehicle automatic parking brake by driven means [of] applying a force through at least one brake pad (2) to a brake disk (1) mounted on a wheel of the vehicle following a command to apply the automatic parking brake including the following steps: measuring a physical property of the brake pad that varies as a function of the force with which this pad is applied to the brake disk (1); comparing the measurement with a prerecorded value ; commanding again the application of the parking brake if the measurement is below the prerecorded value; and emitting a signal for the attention of the driver of the vehicle if the measurement is at the prerecorded value.

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8.The method according to Claim 7, characterized by the step of: measuring said property of the brake pad (2) at different instants following a command to apply the parking brake, in comparing measured values with corresponding prerecorded values and in once again commanding the application of the parking brake if at least one of the measured values is below the corresponding prerecorded value.

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9.The method according to Claim 8, characterized by the steps of: measuring an initial value of said property before the parking brake is applied, measuring another value of this property while the brake is being applied by the driven application means; and measuring another value of this property following mechanical locking of the brake and return of the application means to a position of rest.

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10.The method according to Claim 9, characterized by a

further step of measuring said property as the brake cools.

11.The method according to Claim 8 further including
5 the step of: comparing differences and/or ratios of the measured values of said property with differences and/or ratios of the corresponding prerecorded values.

12.The method according to claim 8 further including
10 the step of: measuring an electrical magnitude associated with the conductivity or electrical resistivity of the brake pad (2) or of its friction lining (3).